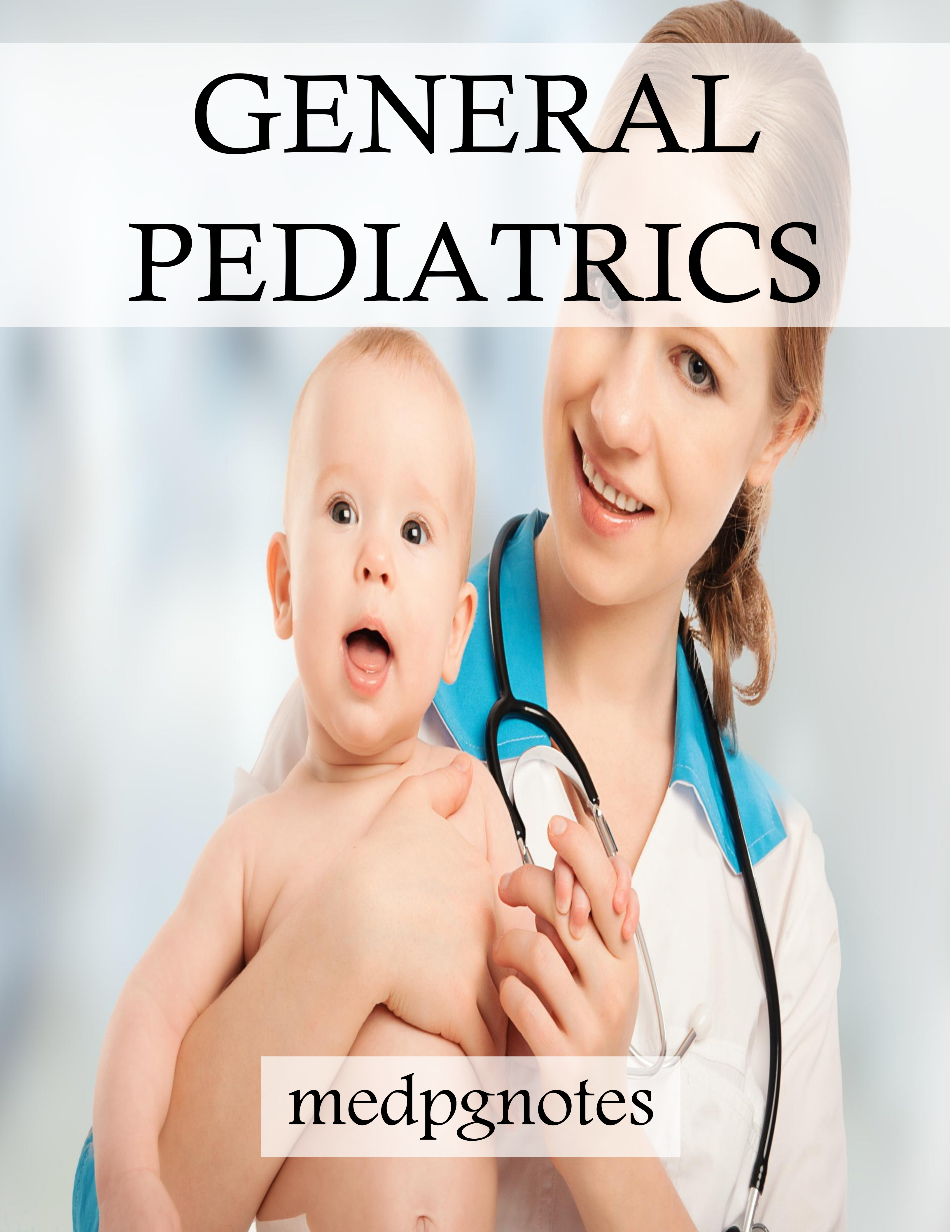
GENERAL PEDIATRICS



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GENERAL PEDIATRICS

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APGAR SCORE 20

KEY TO THIS DOCUMENT

Text in normal font – Must read point. Asked in any previous medical entrance examinations

Text in bold font – Point from Harrison's text book of internal medicine 18th edition

Text in italic font – Can be read if you are thorough with above two

GROWTH AND DEVELOPMENT

HEAD CIRCUMFERENCE

Head circumference measurement	Measured in supraorbital ridge, Measures hydrocephalus/microcephaly
Head circumference at birth	34 cm
Rate of increase in head circumference in first 3 months	2 cm/month
Meaning of baby has 15th percentile of head circumference is	15% of child will have head circumference less than that
Microcephaly if head circumference	3 SD less than mean
Normal chest circumference at birth	*31 cm*
Head and chest circumference equals by	1 year

WEIGHT

Birth weight doubles by	5 months
Infant birth weight is tripled by	11 months
Birth weight is 3 kg, by the end of one year of age is should become	9 kg
Weight gain in second year of life	3 kg
Attainment of weight in a preschool child	3-3.5 kg
Microsomia	Birth weight below 10th percentile
Wasting is defined as	Less than 2 SD for weight by NCHS

HEIGHT

Normal crown lump length at birth	38-50 cm
Average length of a full term child will be about	50 cm
Increase in length in first year of life	25 cm
Length increment of child	*1st year – 25 cm, 2nd year – 12 cm, 3rd – 9 cm, 4th year – 7 cm, 5th year – 6 cm*
Percentage of rise in length of infant in 1st year	50%
Birth height doubles by	4 years
Mean height increase in children from 2 to 10 years	6 cm
Increase in height of child from 1-3 years	20 cm
Increase in height between 6-12 years	6-7cm/year
Peak stage in height growth corresponds to	Stage III of pubic hair
Upper segment to lower segment ratio at birth	*1.7 to 1.9 : 1*
Upper segment lower segment ratio of two year child	1.5:1
Sitting height is equal to	Upper segment

FONTANELLE

Closure of anterior fontanelle is delayed in	Down's syndrome, Hypothyroidism, Osteogenesis imperfecta
Posterior fontanelle ossifies/closes at	2-3 months

GROWTH

Growth in children	*Sigma shaped curve, cephalocaudal, distoproximal*
Toddler	*1 – 3 years*
Postnatally when is the maximum growth velocity	In the first year of life
Growth rate per year in children	5 cm
Growth spurt occurs	Just before appearance of axillary hair
Peak growth velocity in adolescent girl is indicated	just before commencement of menarche
Maximum growth spurt in girls at time of	Menarche
Maximum growth spurt in boys	13 – 14 years
Maximum growth spurt in which of the Tanner stage	*Stage IV*
90% of brain growth is achieved by	2nd year
Tonsils reach maximum size by	5 years
Maximum age of growth of lymphoid tissues	5-7 years (mid children)
Fetal growth is maximally affected by	Insulin
Hormones affecting growth of child	ACTH, GH, Somatostatin
Scale for sexual maturity	Tanner's scale
Child below third percentile of height, growth velocity is normal, chronologic age is more than skeletal age	Constitutional delay in growth

GROWTH CHART

WHO growth chart is	Home based
Road to health chart of growth chart was first designed by	David Morley
Degrees of malnutrition associated with growth chart recommended by government of India	*Grade I (mild malnutrition) – between 70% and 80% lines, grade II (moderate malnutrition) – between 60% and 70% lines, grade III (severe malnutrition) – between 50% and 60% lines*
In WHO "Road to Health" chart, upper and lower limit of represents	50 percentile for boys and 3 percentile for girls
Lower limit of normal range in a growth chart curve is	80% of median weight
Uppermost line of road to health card is equivalent to	50th percentile for boys
Upper reference curve in growth chart of WHO is	50th percentile
In WHO growth chart 'Lower reference curve' represents	3rd percentile
WHO growth chart has NOT got information about	History of maternal health

A mother comes with her 3 year old female child with complain of that child is not eating anything. her weight is 11 kg (50th percentile) and height is 88cm (75th percentile). What should be done	Nothing should be done actively and assure the patients
Gomez classification	Based on 50th percentile Boston standards, Between 75 and 89% implies malnutrition, Has prognostic value in hospitalized children
Growth chart	Highest line corresponds to 80th percentile, Lowest line corresponds to 50th percentile
Growth chart	Tool for educating mothers. Between top 2 lines, it shows Road to health or zone of normality. Lowermost line corresponds to children below 3 percentile
Growth chart used in India has	4 curves
NOT true about growth chart	Position of dots is more important than direction

ADOLESCENCE

WHO defines adolescent age between	10-19 years
Mid adolescence	14 – 16 years
Increase in muscle mass at adolescence is probably caused by	Adrenal hormone

CHILDHOOD DISORDERS

Thumb suckling	Feels insecurely, Pleasurable sensation, Leads to dental problem, Child less than 4 years of age
To avoid displacement of permanent teeth, finger suckling should be terminated by	8 years
Childhood disorder improves by age	Temper tantrum
One year child need NOT to be admitted for	Fever 39*C
Child guidance clinic is useful for	Bedwetting and impaired hearing

DEVELOPMENTAL MILESTONES

GENERAL FEATURES OF DEVELOPMENTAL MILESTONES

Taste perception of baby develops at	Birth
Order of milestones	Mirror play, Pincer grasp, crawling, creeping
Turns head to sound	*1 month*
2 months child can	Sustain head level with the body when placed in ventral suspension
Developmental examination should be further evaluated in child of 12 weeks if the child	Does NOT hold head at 90*

16 weeks child can	Brings object to mouth, laughs loudly, kicks ground on placing it on its feet
Mouthing is developed, NOT developed stranger anxiety	5 months
Object constancy NOT seen at	6 months
10 month child can	Stand alone, play peek a boo, pick up pellet with thumb and index finger
Diagonal localization of sound	*10 months*
40 weeks child can	Cruise, Wave bye bye, Pick up object inadvertently
15 months child can	Crawls upstairs, turns pages in a book, Spontaneous scribble
Spoon without spilling, dress and undress without supervision. understand she is girl	Between 2 to 3 years
Which is not developmental delay?	Moving up and downstairs by 2 and half years
Climbs alternate steps, tower of 8 to 9 cubes, tells I but not his age sex	30 months
What age child can eat food without spilling, identify her gender, say her full name	3 years
6 year old child, IQ 50, can perform	Identify colors
Number of digits remembered by a five year old child	5
India's best known child development testing system	*Phatak, Baroda screening*
Intelligence tests	*Stanford Binet test, Binet Kamat test, Weschler intelligent scale, Malin scale, Good enough's draw a man test*
First IQ test	*Stanford Binet test*
IQ testing done above the age of	*3 years*
Development assessment test	*Gessel test*

SPEECH

Cooing	*3 months*
Vocal tennis	*3 months (reciprocal fashion with adult)*
Babbles	5-7 months
Vocalizes	6-7 months
Monosyllables	*6 months*
Bisyllables	*9 months*
First real word	*12 months*
Age of child who can use 4-5 words including meaningful nouns & represent his ideas mostly by non verbal communication then what is his age?	15 months
Jargon speech	15 months
Speaks 4-6 words	15 months
Speaks one or 2 words with meaning	1 year
10-15 words	18 months
Listen to stories when shown pictures	24 months
Refers to self by I	*30 months*
Simple sentences	*30 months*

Knows full name	30 months
Knows age and sex, tells story and 250 words vocabulary	36 months
Address and telephone number	4-5 years

CUBES

Build of tower of 2 cubes	15 months
3 cubes	15 months
4 cubes	18 months
Build a tower of 6 cubes	22 months
7 cubes	24 months
9 cubes	30 months
10 cubes	36 months

GROSS MOTOR

Head control	1 month
Sustain head level with the body when placed in ventral suspension	8 weeks
Neck holding	3 months
Lifts head and chest off a flat surface with extended elbows	12 weeks
Holds head in steady seated position	16 weeks
Can change position from prone to supine	5 months
Sitting with support	5 months
Bounces actively on standing	7 months
Sit without support	7-8 months
Standing with support	9 months
Crawling	9 months
Creeping	10 months
Walking with support	10 months
Standing without support	12 months
Walking without support	13 months
Running	18 months
Climbs up and downstairs 2 feet per step	2 years
Tip toe walking	2.5 years
Climbs upstairs 1 foot and downstairs one foot	3 - 4 years
Stand on foot for 5 seconds	3 years
Rides tricycle	3 years
Hops	4 years
Skips	5 years

FINE MOTOR

Grasps rattle when placed in hand	*4 months*
Intentional reaching with bidextrous grasp	*5 months*
Transfers object from one hand to other	6-7 months
Pincer grasp	9 months
Holds an ink pot without touching medial side of palm	9 months
Turns pages of book	1 year
Unscrew lid	*2 years*
Turn door knob	*2 years*
Turn book single page	*2 years*
Straight line	*2 years*
Copies circle	3 years
Handedness	3 years
Rectangle	*4 years*
Turn Handedness 2-3 pages	48 months
Draw a triangle	5 years

SOCIAL MILESTONES

Social smile	2-3 months
Follow an object at 180*	2-3 months
Recognizes mother	*3 months*
Stares at own hand	*4 months*
Period of mouthing	5 months
Maximum mouthing	*28 weeks*
Mirror play	6 months
Peak period for social attachment	7 months
Inhibits No	*7 months*
Stranger anxiety	7-9 months
Object constancy	8 months
Waves bye bye	9 months
Play peek a boo	10 months
Points to object	*10 months*
Child sees toy hidden and hides it and gives to mother if asked	12 months
Pretends to drink from cup	*12 months*
Simple ball game	*1 year*
First sign of sphincter control	*15 months*
Learned to eat with spoon without spilling	15 months
Use stick to reach toy	*17 months*
Pretend to play with doll	*17 months*
Knows sex	3 years
Dress and undress herself with supervision	3 years
Knows sex and age	3 years

Identify colors	3 years
Name a familiar object and knows his sex by	3 years
Take self decision	7 years

NEONATOLOGY

GENERAL FEATURES OF NEONATOLOGY

First breath in fetus is achieved by	*Large changes in intrathoracic pressure*
Chemoreceptors active in fetus	*Central chemoreceptors*
A neonate is able to	Focus on bright object
Hypoglycemia in premature infants is due to	*Low glycogen, low PEPCK, large brain : body ratio, inability to use ketone bodies*

KANGAROO MOTHER CARE

Immediate KMC if birth weight	>1800 kg
KMC after stabilization if birth weight	1200 – 1800 g
Not true about Kangaroo mother care	Nutritional supplements

FEEDING OF NEONATES

Initial method of feeding in premature baby 33 weeks of gestation, 1500 gm stable vitals	Orogastric tube/alternate oral route
32 weeks, 1400 gm child, choice of feeding	Feed orally, No IV fluids

NORMAL FINDINGS IN NEONATES

Normal temperature of newborn	36.5 to 37.5*C
Normal heart rate at birth	120-160
Neonatal MCV	90-110
Common finding in neonate	Milia, mongolion spot, Epstein pearl, Erythema toxicum, subconjunctival hemorrhage
Epstein pearl	*Milia on eyelids*
Golden yellow stool. adequate hydration	Reassurance
Color of transition stools	Yellow
Neonate presenting with vaginal bleeding on 4th day	No specific treatment
NOT a normal finding in newborn	Systolic murmur, Central cyanosis
Treatment of hymenal tag	Leave it alone
Appropriate approach to neonate presenting with vaginal bleeding on day 4 of life	No specific therapy

Vaginal bleeding in newborn child due to	Oestrogen withdrawl
99% neonates void within	24 hours
Ankle clonus of 5 contraction in a 3 month old infant	Often normal
Common site of Mongolian spot	Lumbosacral area, thigh ,leg
Stork bite lesion	Macular staining of infants
Erythema toxicum in neonate indicates	NO significance
Resolve spontaneously in infants	Mongolian spot, milia, erythema toxicum
NOT seen in normal newborn	Acrocyanosis
Weight loss in first week	NORMAL
Gas in rectum should be normally present for	*24 hours*

ABNORMAL FINDINGS IN NEONATES

Abnormal finding in a neonate	Bacteriuria
Commonest cause of vomiting in one month infant	Aerophagia
Abnormal skin change in newborn	Infantile acropustulosis
Harlequin skin change in newborn is seen in	Autonomic dysfunction
Feet is cold and abdomen is warm	*Cold stress*
Retinal hemorrhage in newborn is associated with	*Good prognosis*

GENERAL FEATURES OF NEONATAL DISEASES

Hypoglycemia in late infant occurs if blood glucose level is	40 mg/dl
Estimation of blood sugar is NOT relevant in	Baby of hypothyroid mother
NOT having increased risk of hypoglycemia	Post term infant
In a child cessation of breathing for 20 seconds	Apnea
According to WHO criteria, anemia in infant of 6 months of age is defined as Hb less than	110 gm/litre
MC sign of acute hypoxia in neonate	Bradycardia
Severe bradycardia in newborn if heart rate	<60
Low birth weight means birth weight	2500 gm or less
Shock in children	Hypotension is a late sign
Sudden infant death syndrome	Occurs in male child, Allergy to animal milk, Seen in premature babies
SIDS is common in	*Winter*

NEONATAL RESUSCITATION

Three questions asked during newborn resuscitation	*Term or preterm, crying, muscle tone*
First priority in neonatal resuscitation	*Temperature (TABC)*
Best artery to palpate pulse in infants	Brachial artery
Best site to demonstrate capillary filling in infants	Sternum

Child electrocuted while playing in park, apneic ventilated with bag and mask. next step	Check pulses
A 6 months old child having severe dehydration comes to casualty with weak pulse and unrecordable BP. repeated attempt in gaining IV access has failed. next best step	Intraosseous IV fluids
Continuous pharyngeal suction in an asphyxiated child is NOT recommended because it may cause	Bradycardia
Resuscitation	*90:30 (1 min)*
Resuscitation can be given up if no progress after	*10 minutes*
Techniques in chest compression	*2 thumb technique, one third of AP diameter depth*
Result of chest compression	*Increase in heart rate*
Therapeutic hypothermia	*>36 weeks*
Dose of adrenaline through endotracheal tube in pediatric resuscitation	*0.1 mg/kg*
Medication NOT used in newborn resuscitation	Calcium gluconate
Resuscitation bag volume in neonates should NOT exceed	250 ml
Administration of glucose is NOT prescribed for	History of unconsciousness

NEONATAL DIARRHOEA

MC cause of Neonatal diarrhea	Rotavirus

NEONATAL SEPSIS

Most common cause of neonatal sepsis	Local nursing environment
MC cause of neonatal sepsis in hospitals in India	Klebsiella
MC cause of Neonatal sepsis	Group B streptococci
MC cause of early onset neonatal sepsis	*Group B streptococci*
MC cause of late onset neonatal sepsis	*Coagulase negative staphylococcus*
MC cause of late onset community acquired infection	*Streptococcus pneumoniae*
Common cause of early onset Neonatal septicemia	Streptococcus agalactiae
NOT a common cause of neonatal sepsis in India	Acinetobacter
Neonatal sepsis	Fever, Jaundice is a common feature, Meningitis commonly occur lately
Lethargy is a 2 day old infant strongly suggest	Infection
Procalcitonin is a marker of	Sepsis
Broad base PCR	*Neonatal sepsis*
Least observed laboratory finding in neonatal sepsis	Neutrophilia, Leucocytosis

SURFACTANT

Surfactant Synthesis	24 weeks
Storage organelle for surfactant	*Lamellar body*
NOT helpful in formation of Surfactant	Thyroxine
Surfactant appears in amniotic fluid	32 weeks
Surfactant prevents collapse of Lung during expiration by	Decreasing surface tension of fluid lining the alveoli and respiratory passages
SP-B, SP-C	*Surface tension lowering agent*
Loss of pulmonary surfactant	Pulmonary edema, Collapse of alveoli, Elastic recoil of lungs
Deficiency of surfactant leads to	HMD

FEATURES OF RESPIRATORY DISTRESS SYNDROME

Neonatal apnea is seen in	Prematurity, Hypoglycemia
Drug causing respiratory depression in newborn	Opioids
Medical disorder leading to delayed fetal lung maturity	Diabetes
Fetus born during 6th month of intrauterine life will NOT be able to survive due to	Absence of sufficient amount of surfactant
Newborn with APGAR score of 2 at 1 min and 6 at 5 min has respiratory distress and mediastinal shift	Congenital adenomatoid lung disease, Diaphragmatic hernia
Incidence of respiratory distress syndrome in 28 weeks baby weighing 1500 g	80%
Respiratory distress syndrome	Usually occurs in infants born before 34 weeks of gestation, Leads to cyanosis, More common in babies born to diabetic mother
Signs of neonatal respiratory distress syndrome	Intercostal retraction, RR > 60, pH < 7.2 Hypoxemia, reticulonodular shadow in CXR
Failure to initiate and maintain spontaneous respiration following birth is clinically known as	Respiratory distress syndrome
Grunting respiration in newborn	Respiratory disease
RDS NOT associated with	IUGR
Intrauterine respiration in fetus NOT seen in	RDS
Silvermann and Downe scoring for	*RDS*
Child with grunting no nasal flare with chest retraction – silverman score	4
Predominant constituent of hyaline membrane	Fibrin rich exudates
Hyaline membrane seen in lung is composed of	Fibrin
Hyaline membrane disease is associated with	Respiratory distress
Granulomatous appearance of lung with air bronchogram in neonate	HMD
Pulmonary hyaline membrane is an important cause of perineal death in	Premature stillborn infant
Hyaline membrane disease	Phosphatidyl glycerol estimation is a reliable method of diagnosis
Hyaline membrane disease NOT associated with	Staphylococcal pneumonia
Clinical sign of hyaline membrane disease first occurs at	First 6 hours of life

A 31 weeks pregnant lady delivers a child. In 4 hours, baby develops dyspnoea and cyanosis. X ray chest shows ground glass appearance	Hyaline membrane disease
A newborn weighing 1000g is born at 30 weeks with respiratory distress 2-3 hours after birth.	Hyaline membrane disease

INVESTIGATION OF RESPIRATORY DISTRESS SYNDROME

Fetal lung maturity is assessed by	L/S ratio
Tests for fetal lung maturity	Lecithin, Creatinine
Nile blue sulphatase test for	Detecting maturity of lung
NOT a test for fetal lung maturity	*Nitrazine paper test*
Favor diagnosis of RDS	Air bronchogram in chest X ray
X ray appearance of hyaline membrane disease	Reticulonodular shadow
Features of respiratory distress syndrome	*Ground glass opacity, whiteout lung*
Child, respiratory distress, vascular ring suspected	MRI

SILVERMAN ANDERSON SCORING

FEATURES	0	1	2
Upper chest retraction	*Synchronized*	*Lag on inspiration*	*See saw movement*
Lower chest retraction	*None*	*Just visible*	*Marked*
Xiphoid retraction	*None*	*Just visible*	*Marked*
Nasal flaring	*None*	*Just visible*	*Marked*
Expiratory grunt	*None*	*Stethoscope*	*Naked*

TREATMENT OF RESPIRATORY DISTRESS SYNDROME

Administration of betamethasone to mother with premature delivery	Decreases neonatal morbidity, Helps lung maturity, Decreases intraventricular hemorrhage
Dexamethasone injection is to prevent	RDS
Neonate born 2 hours ago develops moderate respiratory distress in terms of increased respiratory rate, chest indrawing and grunting. best management	Surfactant therapy and mechanical ventilation
1.5 kg child born at 32 weeks with moderate respiratory difficulty. Appropriate management	Warm oxygen
NOT true about RDS	Treated by 100% oxygen
32 weeks neonate on ventilator, white out lung PO2 75,FiO2 70 rate of 50/min	Continue ventilation with same setting
30 week gestation mother delivered 1.2 kg baby moderate respiratory distress. RR 70/min with grunting and chest retraction	Nasal CPAP

MECONIUM ASPIRATION SYNDROME

MC cause of respiratory distress after birth in first 24 hours	Meconium aspiration
Definition of non vigorous baby in meconium stained liquor	Tone, Heart rate, Respiratory rate
In non vigorous baby	*Suction is postponed*
Taken into account for terming baby vigorous	Tone, heart rate, respiration
3 kg term baby delivered by caesarean section develops respiratory distress soon after birth. Liquor was meconium stained. Breathing rate is 90 per minute.	Meconium aspiration syndrome
Meconium passage in utero leads to	Obstructive emphysema
Feature of meconium aspiration syndrome	*Hyperinflation with patchy infiltrate*
Meconium aspiration is done for 3 times but no breathing occurs. next step in resuscitation would be	Tickling of sole
Residual meconium is removed by	*Suctioning by direct vision under laryngoscope*

NECROTIZING ENTEROCOLITIS

Features of neonatal necrotizing enterocolitis	Abdominal distension, Metabolic acidosis, Pneumoperitoneum, ABSENT bowel sounds
Significant feature of bowel ischemia in necrotizing enterocolitis	*Erythema of abdominal wall*
NOT true about necrotizing enterocolitis	Left colon is more frequently involved than right
NOT a feature of neonatal necrotizing enterocolitis	Increased bowel sound
Pneumatosis intestinalis	*Stage II A*
Necrotizing enterocolitis with gas in portal vein in	Stage II B
Earliest X ray change in X ray abdomen in necrotizing enterocolitis	Non specific bowel dilatation
Pneumatosis intestinalis is seen in	Necrotizing enterocolitis
Modified Bell's staging for	*Necrotizing enterocolitis*
Characteristic radiological finding in neonatal necrotizing enterocolitis	Gas in intestinal wall
Diagnostic finding in Pneumatosis intestinalis	Intramural gas
VLBW preterm baby on ventilator for respiratory distress, clinical features of necrotizing enterocolitis with perforation	Peritoneal drainage

NEONATAL SEIZURES

MC type of newborn seizures associated with EEG changes	*Clonic seizures*
MC type of newborn seizures not associated with EEG changes	*Subtle*
MC type of seizures following HIE	*Subtle*

Newborn seizures with best prognosis	*Tonic clonic seizures*
Newborn seizures with worst prognosis	*Myoclonic seizures*
Convulsions in infant can be caused by	Hypoglycemia, Hypocalcemia, Atonic, Fever
Neonatal cause of seizure carrying best prognosis	Late onset hypocalcemia
2 day old neonate presents with seizures. Next investigation	Ultrasound
Treatment of choice for neonatal seizures	Barbiturate
Neuroprotective effect in newborn seizures and used in refractory infantile spasm	*Topiramate*
Advantage of amplitude EEG	*It can be done in critically sick babies*

TRANSIENT TACHYPNEA OF NEWBORN

MC cause of respiratory distress in newborn	*Transient tachypnea of newborn*
Transient tachpnea of newborn	Interlobar fissure effusion, Mild pleural effusion, prominent vascular marking, Commonly seen in elective caesaren section
Characteristic feature of transient tachpnea of newborn	Prominent horizontal fissure
Transient tachypnea of newborn occurs in	Term babies
Transient tachypnea of newborn	Onset of respiratory distress is immediately after birth and it rarely lasts beyond 48 hours
40 weeks diabetic woman delivers baby by LSCS. baby developed respiratory distress	Transient tachypnoea of new born

NEONATAL JAUNDICE

1 gram of hemoglobin yields	*35 mg of bilirubin*
Lucey Driscoll syndrome	*Hyperbilirubinemia, due to transfer of glucoronyl transferase inhibiting substance*
Neonatal cholestasis is associated with	*Hypothyroidism, hypopituitarism, tyrosinemia*
Hyperbilirubinemia in an infant can be due to	Breast milk jaundice, Alpha 1 antitrypsin deficiency
NOT a cause of neonatal jaundice occurring in 2nd week	Rh incompatibility
A term baby developed jaundice on 3 rd day up to thigh with normal stool and urine. Mother's blood group is O negative and that of baby's A + ve. cause of jaundice	Physiological jaundice
Physiological jaundice in neonate	Unconjugated hyperbilirubinemia, Starts on 2nd day of life
Physiological jaundice	Total bilirubin concentration in serum increases by 1 mg/dl per day
Causes of physiological jaundice	Increased HbF destruction, Decreased conversion of bilirubin to urobilinogen, Inadequate conjugation of bilirubin
Physiological jaundice	Appears on 3rd day and regresses by 7th day

Jaundice in newborn	*Head – 5 mg/dl, above umbilicus – 10 mg/dl, below umbilicus – 12 mg/dl, feet – 15 mg/dl*
In physiological jaundice in preterm infants, serum bilirubin does not generally exceed	15 mg%
Breast milk jaundice is due to	Pregnanediol
Commonest cause of pathological hyperbilirubinemia in India	Rh incompatibility
Jaundice seen immediately after birth	Septicemia, Rh incompatibility
NOT a cause of unconjugated bilirubinemia	Congenital cholangiopathy
In newborn brain damage may be associated with serum bilirubin protein ratio of	More than 3.5
Substance toxic to Neuron	Unconjugated bilirubin
Risk of kernicterus in unconjugated hyperbilirubinemia increases with the use of	Sulphonamide
Risk of kernicterus is increased by	Low level of serum albumin, Acidosis, Prematurity
Type of bilirubin increased in kernicterus	Unconjugated bilirubin
In kernicterus, staining of blood in intense in	Basal ganglia
Condition increasing bilirubin toxicity	*Acidosis*
NOT a long term sequale of kernicterus	*Blindness*
Measured in newborn who presents with hyperbilirubinemia	Total and direct hyperbilirubinemia
Drugs that can be used in kernicterus	Barbiturates
Drugs that may be used for neonatal jaundice	*Clofibrate, orotic acid*
Best light for phototherapy	*Special blue light (420 – 480 nm)*
Lights in phototherapy	*4 blue light and 2 white lights*
Distance in phototherapy	*45 cm*
Minimal irradiance	*8 – 10 microwatt/sq/ cm/nm*
Minimum level of serum bilirubin to start phototherapy	20 mg%
Phototherapy reduced toxic bilirubin to non toxic bilirubin by	E isomerisation
Chief mechanism in phototherapy responsible for reduction in serum bilirubin	Structural isomerisation
Effect of phototherapy NOT indicated by	Spectral radiance of incident light
Indication of prophylactic phototherapy	*ELBW (less than 1 kg), severely bruised infant*
Contraindication for phototherapy	*Direct hyperbilirubinemia (may lead to bronze baby syndrome)*
Bronze baby syndrome is due to	Phototherapy
Level of hematocrit above which exchange transfusion is required in infant	75

INFANT BORN TO DIABETIC MOTHER

Infant of diabetic mother	Macrosomia, Neural tube defect, hypoglycemia, Hypocalcemia, hypomagnesemia, hyperbilirubinemia
Long term complications of infant born to diabetic	Diabetes mellitus, Obesity, Blindness

mother	
A male child of 3.8 kg born to a diabetic mother, developed seizures 16 hours after birth. probable cause	Hypocalcemia
A 4 kg baby born to a diabetic mother found lethargic	Start oral feeding
Common congenital anomaly in baby born to diabetic mother	Cardiovascular abnormalities
Malformation specific for maternal insulin dependent diabetes mellitus	Caudal regression

NEONATAL ASPHYXIA

MC cause of convulsions in first day of life	Anoxia
8 days old neonate with extensor posture	Hypoxic ischemic encephalopathy
Hypoxic ischemic encephalopathy	Seizure
Hypoxic ischemic necrosis is associated with	**Cortical laminar necrosis**
Perinatal asphyxia leads to	HIE, MAS, Necrotising enterocolitis
MC sequale of periventricular leukomalacia	Spastic diplegia
Commando crawl in preterm baby is due to	*Spastic diplegia*
Asphyxia injury in a term baby is NOT characterized by	Differential hypotonia (lower limb > upper limb)
Seizures in Sarnat classification of HIE	Stage II
Neonatal behavioural scoring	*I – eyes closed, regular respiration, no movements. V - crying*
Neurological examination is best done	*Score III*
A child with eye closed, moving all 4 limbs and crying lustily, neonatal behavioral response scale for him?	Stage 5
A non ventilated preterm baby in incubator is under observation. what is the best way to monitor baby's breathing and detect apnea	Impedance technique
Cerebral blood flow in an asphyxiated child is best measured by	NIRS
Drugs used in 1 hour old infant with severe birth asphyxia	Glucose, Calcium gluconate, Normal saline
Drug NOT required for 1 hour old infant with severe birth asphyxia	Dexamethasone

CEREBRAL PALSY

Cerebral palsy in term is associated with	*Functional isomerisation of IL-6*
Cerebral palsy is defined as	Non progressive neuromuscular disorder of cerebral origin
Mental retardation, spastic limbs, H/O perinatal distress	Cerebral palsy
Features of cerebral palsy	Athetosis, Spasticity, Mixed palsy, Rigidity
Commonest type of cerebral palsy	Spastic
Cerebral palsy manifesting after age of 1 year is of	Spastic type
MC type of cerebral palsy	*Spastic diplegia*
Most severe form of cerebral palsy	*Spastic quadriplegia*

Cerebral palsy most likely to be associated with birth asphyxia	*Athetoid*
NOT a feature of cerebral palsy in Infant	Flexor hypotonia
NOT found in cerebral palsy	Microcephaly
In treatment of spastic cerebral palsy, posterior rhizotomy	*Reduces muscle tone*
A 7 year old child with spastic diplegia had valgus deformity 3 month following lumbar selective posterior rhizotomy. Most appropriate treatment is	*Application of bilateral ankle foot orthoses*

BREATH HOLDING SPELLS

Breath holding spells in a child	Inflicting painful stimulus at the beginning of attack, Do not give attention to child
Breath holding spells	Fairly common in first 2 years of age, Does Not contribute to increased risk of seizure disorders, Parents are advised to ignore and do not reinforce these attacks
Differential diagnosis of breath holding spells	Seizures, Cardiac arrhythmia, Brain malformation
True breath holding spells generally do NOT occur after	5 years

PRIMITIVE REFLEXES

Reflex NOT present in child at birth	Moro's reflex
Features of Moro reflex	*Extension of elbow, abduction of shoulder, opening of hand*
Moro reflex disappears at	6 months
Atypical Moro reflex	Clavicle fracture, Shoulder dislocation, Brachial plexus injury
Asymmetric Moro reflex	Erb's palsy
Atypical Moro's reflex is NOT seen in	Sternomastoid tumor
A baby on examination shows unilateral Moro's reflex with positive palmar grasp reflex. site of lesion	C5-C6
A mother is preparing to breast feed her infant, it would be of more value to her, if she were acquainted with	Rooting reflex
Crossed extensor reflex is a	Withdrawal reflex
Palmomental reflex is seen in lesion of	Frontal lobe
Tonic Neck reflex integrated at	Medulla
Reflex NOT present at birth	Symmetric tonic neck reflex
Adult Implication of Disappearance of Asymmetric Tonic Neck Reflex	Development of homolateral one sided movements
Grasp reflex	38 weeks
Onset of parachute reflex	7-8 months

APGAR SCORE

APGAR score is done	Immediately after birth
APGAR score with highest mortality	0-3
No cry, Grimace, flexed limbs, pink body, blue extremities, APGAR	5
Factor does NOT affect APGAR score	Mode of delivery
NOT a component of APGAR score	Body temperature

APGAR SCORE

CRITERIA	0	1	2
Color	*Pale or blue*	*Pink body, blue extremities*	*Pink*
Heart rate	*Absent*	*Less than 100*	*More than 100*
Respiration	*Absent*	*Slow and irregular*	*Good breathing and crying*
Reflex response	*No response*	*Grimace*	*Cry*
Activity	*None*	*Some flexion*	*Flexion of arms and legs restricting extension*